

2016 FLOODPLAIN RESOURCE SEMINAR

STATE OF MONTANA Floodplain Program



COURSE OVERVIEW

PROGRAM BACKGROUND

PERMITTING and ORDINANCES

FLOOD MAPS and REPORTS

FLOOD INSURANCE

FLOODING IN MONTANA

PROGRAM BACKGROUND

WHY MANAGE FLOODPLAIN DEVELOPMENT?

Maintain compliance with the National Flood Insurance Program

- Eligible for federal disaster relief
- Eligible for national flood insurance

Balance public good with private injury

- Identify lands unsuitable for development
- Keep one property owner from harming another

Identify property options that are located in areas with less specified hazards

Why was it created?

Reduce the amount spent on flood control measures

» Guide development away from flood hazard areas

Reduce the amount spent on federal disaster aid

» Provide flood insurance coverage

What is it?

COMMUNITIES adopt and enforce a floodplain management ordinance





FEDERAL GOVERNMENT makes flood insurance available within the community & PRIVATE INSURERS write policies based on an agreement with the federal government



REGULATIONS

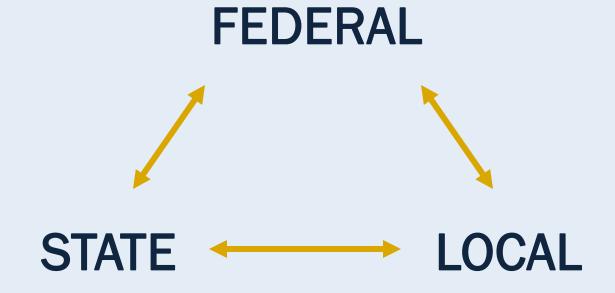
INSURANCE

MAPPING

MITIGATION



Roles



Federal Role

Administer the program through regional offices

Provide assistance to the State

Assess community compliance with the program

Advise local officials

Review and adopt new maps/flood hazard data

FEMA REGIONAL OFFICES



State Role

Ensure communities have legal authority

Establish minimum State regulatory requirements

Provide technical assistance to local governments

Coordinate activities of other State agencies that affect the National Flood Insurance Program

DNRC's Services

Floodplain website, www.floodplain.mt.gov

Floodplain Administrators Database

General technical assistance

Community Assistance Visits

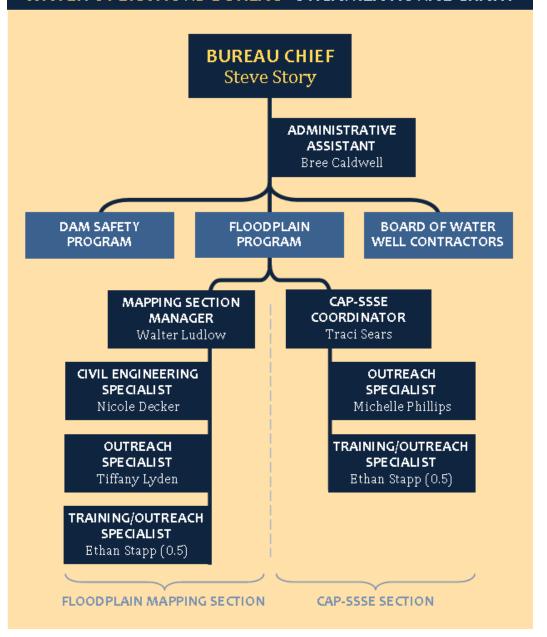
Ordinance review/assistance

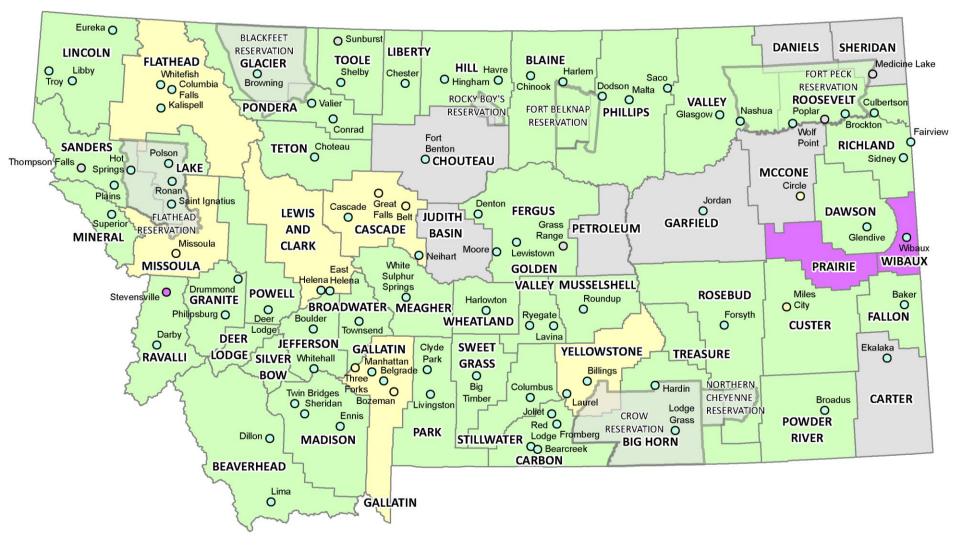
Flood hazard mapping

Training and outreach



WATER OPERATIONS BUREAU ORGANIZATIONAL CHART



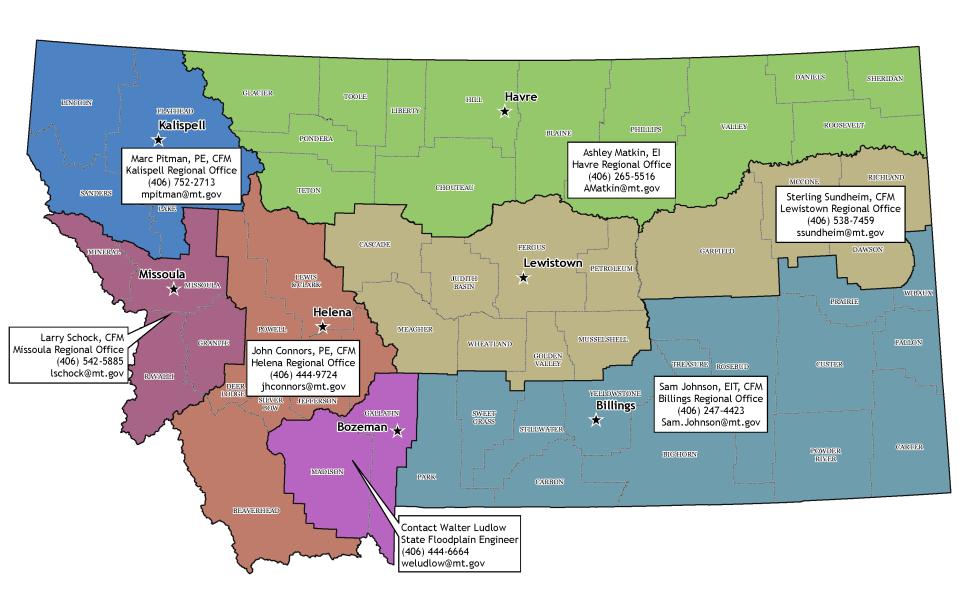


NFIP Community Status Number of Participating Communities Community Rating System Participant Counties 87 Participating Community Municipalities NATIONAL FLOOD Reservations Community Not Participating Joint Municipality and County (Butte, Anaconda) 2 January 2016 Suspended Community Total 135 * CRS communities recieve discounted insurance premiums

DNRC Regional Engineers

Provide technical review of

- Floodplain Development Permit applications
- Subdivision Floodplain delineations and Flood Hazard Evaluations
- Letter of Map Changes (CLOMR, LOMR, LOMA, etc.)
- Floodplain studies
- Proposed projects near/within a regulated floodplain
- Variances, general consultation, & site visits



DNRC Regional Engineers

COMMUNITIES make the final determination regarding permit/project approval

REGIONAL ENGINEERS provide technical assistance, including professional recommendations and comments, when requested

DNRC Regional Engineers

The Technical Review Process

- Community (typically the Floodplain Administrator) submits written technical assistance request directly to DNRC Regional Engineering Specialist
- 2. DNRC completes the review and returns written comments and recommendations to the community
- 3. Community makes final determination regarding the sufficiency and adequacy of the technical submittal to satisfy the local permit requirements.

Community Role

Establish legal authority to adopt and enforce floodplain management regulations

Establish minimum regulatory requirements

Establish a floodplain permitting process for issuing or denying floodplain development permits

Require additional Federal/State/local permits when applicable

Community Role (cont)

Inspect all development within the regulatory floodplain to assure compliance with the local regulations.

Assist in the preparation and revision of flood maps.

Maintain records of floodplain development.

Assist residents in obtaining information on flood hazards, map data, flood insurance, and proper construction measures.

Answer questions from design professionals and the public.

PERMITTING AND ORDINANCES

NFIP STANDARD **MONTANA STANDARD Lowest Floor Freeboard** None 2 feet above BFE **Floodway Encroachment** 1 foot surcharge ½ foot surcharge **Habitable Structure Location** Allowed in floodway Prohibited in floodway **Mobile Homes** May be elevated 3 feet Requires elevation to the above adjacent grade freeboard protection level **Septic Systems** In subdivisions, systems Allows systems within be located 100 feet beyond the floodplain

floodplain

COMMUNITY ORDINANCES

Should meet or exceed federal and state standards

Should follow the 2014 State Model Regulations

Should be updated to reflect map changes

FLOODPLAIN PERMITS

Floodplain Administrator Role

- 1. Determine if a floodplain application is needed
- 2. Review the floodplain application
- 3. Submit completed application to Regional Engineer for Technical Review (if necessary—2 week turn around)
- 4. Prepare public notice to adjacent property owners, local newspaper, and DNRC (allow 15 days for comment)
- 5. Ensure that other applicable permits have been received
- 6. Conduct site visit(s)
- 7. Approve, approve with conditions, or deny permit application

Applicant Role

Prepare and submit permit applications in accordance with regulations

When PE certification is required, licensees shall perform services only in the areas of their competence

It is not the State's role to walk the applicant through the permitting process nor to train their representative(s)

JOINT APPLICATION FOR PROPOSED WORK IN MONTANA'S STREAMS, WETLANDS, FLOODPLAINS, AND OTHER WATER BODIES

Use this form to apply for one or all local, state, or federal permits listed below. The applicant is the responsible party for the project and the point of contact unless otherwise designated. "Information for Applicant" includes agency contacts and instructions for completing this application. To avoid delays, submit all required information, including a project site map and drawings. Incomplete applications will result in the delay of the application process. Other laws may apply.

The applicant is responsible for obtaining all necessary permits and landowner permission before beginning work.

1			
	<u>PERMIT</u>	AGENCY	<u>FEE</u>
	310 Permit	Local Conservation District	No fee
Γ	SPA 124 Permit	Department of Fish, Wildlife and Parks	No fee
	Floodplain Permit	Local Floodplain Administrator	Varies by city/county (\$25 - \$500+)
	Section 404 Permit, Section 10 Permit	U. S. Army Corps of Engineers	Varies (\$0 - \$100)
	318 Authorization 401 Certification	Department of Environmental Quality	\$250 (318); \$400 - \$20,000 (401)
	Navigable Rivers Land Use License, Lease, or Easement	Department of Natural Resources and Conservation, Trust Lands Management Division	\$50, plus additional fee

A. APPLICANT INFORMATION

NAME OF APPLICAN	\mathbf{T} (person responsible for project):		
Has the landowner con	sented to this project?	Yes □ No	
Mailing Address:			
Physical Address:			
Day Phone:	Evening Phone:	E-Mail:	
Mailing Address:			
Physical Address:			
Day Phone:	Evening Phone:	E-Mail:	
NAME OF CONTRAC	TOR/AGENT (if one is used):		
Mailing Address:			
Physical Address:			
	Evening Phone:		

FLOODPLAIN ADMINISTRATOR PERMIT REVIEW CHECK LIST

TO BE COMPLETED BY LOCAL FLOODPLAIN ADMINISTRATOR

THIS FORM WILL GUIDE YOU THROUGH THE STEPS NEEDED TO COMPLETE THE PERMIT PROCESS

Applicants name: Application #	
Project Location: Name of stream/water body at location of activity	
Location1/41/41/4 Section Township Range	
The proposed development is in Floodway Floodway Fringe Floodplain	with no elevations
The base flood elevation at the project site is	
PART A CHECKLIST FOR APPLICATION	
 Plans in duplicate drawn to scale (including dimensions) showing the n of the lot existing and proposed structure locations; fill, storage, or mate measures; mean sea level elevation of lowest floor including basemen structures; location of the channel. 	erials site; flood-proofing
2. A plan view of the proposed development indicating external dimensions of structures, Street or road finished grade elevations, well locations, individual sewage treatment and disposal sites, excavation and/or fill quantity estimates, and site plan and/or construction Plans.	
 Specifications for flood-proofing, filling, excavating, grading, riprapping, storage of materials, and location of utilities. 	
 A professional engineers or registered architects design calculations and proposed activity has been designed to be in compliance with these reg 	
5 (Date) Complete application was received.	
 A notice containing the facts pertinent to the application has been prepa published at least once in a newspaper of general circulation in the area 	
 Notice has been sent by first class mail to adjacent property owners pro able period of time for comments to be submitted. (15 days). 	viding a reason
8 Notice has been sent to DNRC Floodplain Management Section.	
ART B REVIEW OF APPLICATION According to floodplain regulations, several criteria must be considered in deciding whether or not a permit is issued. They are listed below for your convenience.	
 a. Proposed project meets minimum floodplain development criteria a floodplain Management Ordinance. 	s outlined in the
b. the danger to life and property due to increased flood heights, incre velocities or alterations in the pattern or flow caused by encroachm	
c. the proposed water supply and sanitation systems, if any, and the a systems to prevent disease, contamination and unsanitary condition	

 a. The susceptibility of the proposed facility and its contents to flood damage and the effects of such damage on the individual owner. 		
_e. The likelihood that the structure of building will be threatened due to its proximity to the stream or potential lateral movement of the stream.		
f. The importance of the services provided by the facility to the community.		
g. The requirement of the facility for waterfront location.		
h. The availability of alternative locations not subject to flooding for the proposed use.		
1. The compatibility of the proposed use with existing development and anticipated development in the foreseeable future.		
j. The relationship of the proposed use to the floodplain management program for the area.		
k. The safety of access to property in times of flooding for ordinary and emergency services.		
I. Effect of the project on other properties.		
m. The effects on water right.		
n. The cumulative effect of the proposed project along with other existing projects.		
_o. Make sure all factors are in harmony with the proposes of the Montana Floodplain and Floodway Management act, and the National Flood Insurance Program.		
p. The construction will not cause undue constriction on the channel.		
q. The material on grade on watercourse banks will not cause erosion.		
Once the application has been reviewed and the above criteria has been considered, the application should be either approved or denied within 60 days of receipt of completed application.		
IF PERMIT IS DENIED: Letter of explanation has been provided to the applicant stating reasons for denial.		
Applicant has been notified of the following options:		
Proposed development may be redesigned to meet required floodplain standards		
Applicant may appeal the administrators decision to the local governing body.		
If you feel the ordinance places an undue hardship on your property, you may request a variance to he ordinance.		
IF PERMIT IS ISSUED: 9 Permit is issued with list of conditions included or attached.		
 For residential/commercial structures, a completed Elevation Certificate (FEMA Form #81-31) has been received. 		
The completed project has been inspected for compliance. Date		
12 A complete set of documents pertaining to this development will be attached to the permit and kept on file.		
13 A copy of the permit has been in to the DNRC in Helena.		

Who Else Uses the Joint Application?

- § Conservation Districts 310 permits
- § MT Fish, Wildlife, and Parks SP 124 permits
- § US Army Corps of Engineers Section 404/Section 10 permits
- § MT Department of Environmental Quality 318 (turbidity) Authorizations
- § MT Department of Natural Resources & Conservation navigable river land use licenses and easements

The Application Process Goals

We want to turn this:

"I want to dump a couple of loads of rock along the bank to stop it from eroding."

Into:

"I will lay back 100 ft. of the existing bank on a 2:1 slope and place 30 cubic yards of 24 inch rip rap to stop the bank from eroding."

A successful first contact could turn this:

"My buds and I just bought some jet skis, and I want to put a dock and some rocks in. The Kawasaki rep told me to call you."



Into this:

"I am interested in constructing a boat dock on my property in addition to applying some bank protection measures to reduce bank erosion. I have already inquired about other permit from the USACE, the conservation district, DEQ, and FWP permits."



FLOOD HAZARD MAPPING

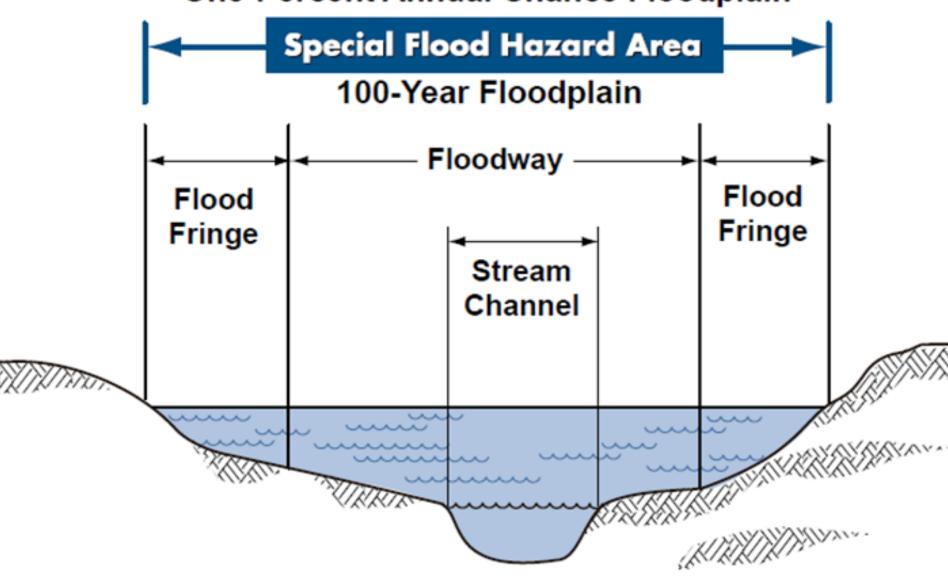
FEMA'S FLOOD HAZARD MAPPING PROGRAM

Identifies flood hazards (rivers, lakes, drainages, etc.)

Assesses flood risks

Partners with States and communities to provide accurate flood hazard and risk data

One-Percent Annual Chance Floodplain



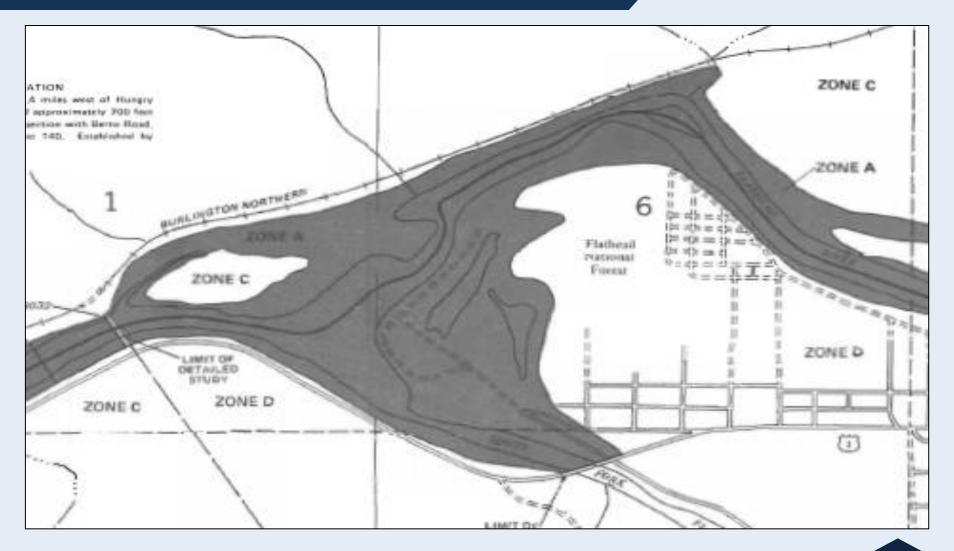
TYPES OF FLOOD MAPS

APPROXIMATE STUDY (ZONE A): The SFHA is defined, but no base flood elevations or flood profiles.

LIMITED DETAILED STUDY (AE): The SFHA is defined and may include base flood elevations. Profiles and BFEs published in FIS.

DETAILED STUDY (AE): The SFHA & 500-yr floodplains are defined, and base flood elevations are published in FIS. Floodway analysis typically performed.

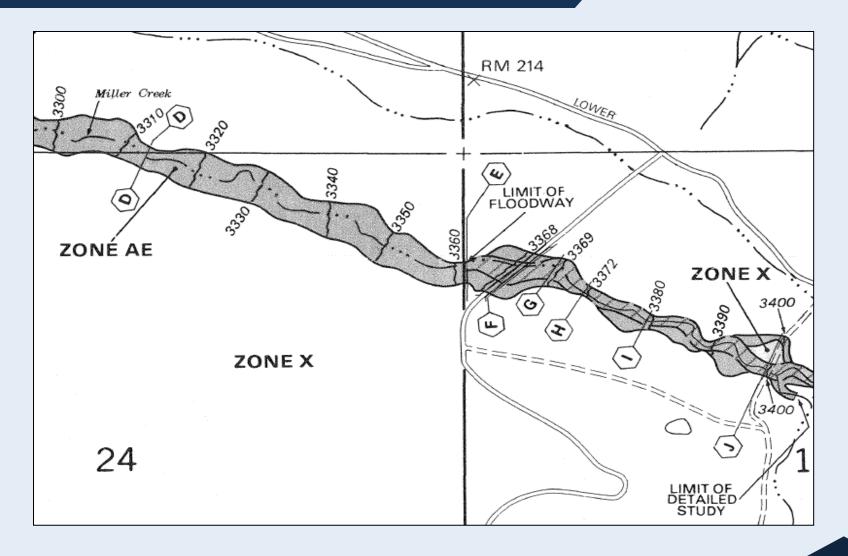
APPROXIMATE STUDY



APPROXIMATE STUDY



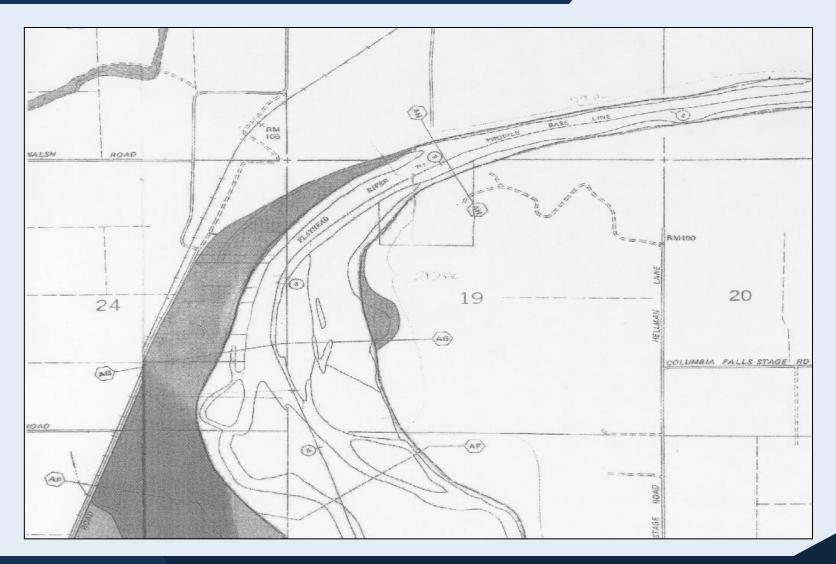
LIMITED DETAIL STUDY



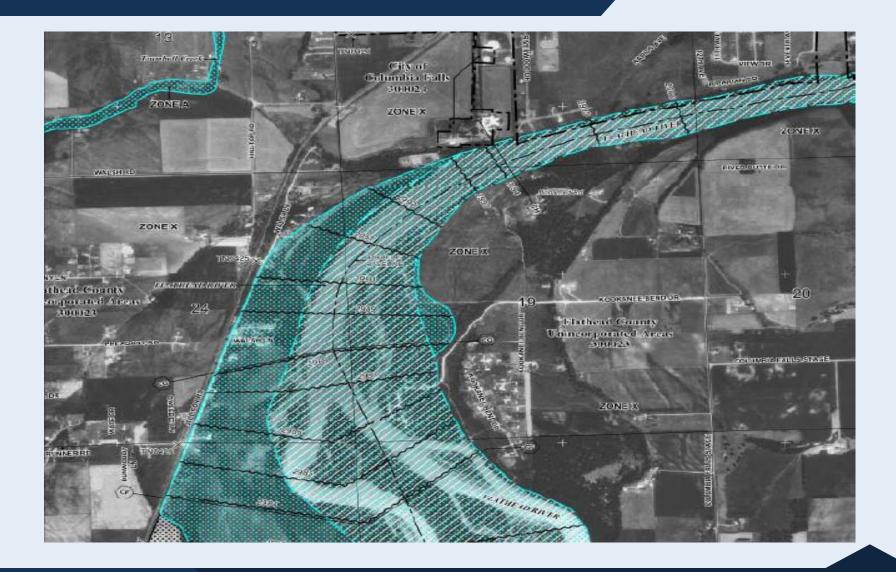
LIMITED DETAIL STUDY



DETAILED STUDY



DETAILED STUDY



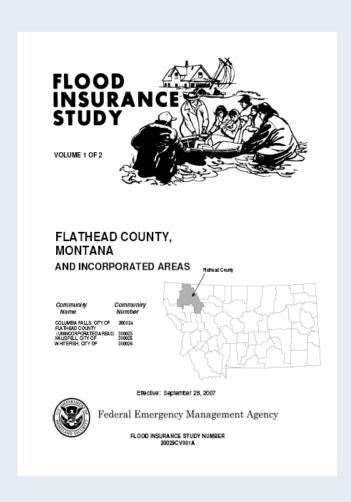
FLOOD INSURANCE STUDY

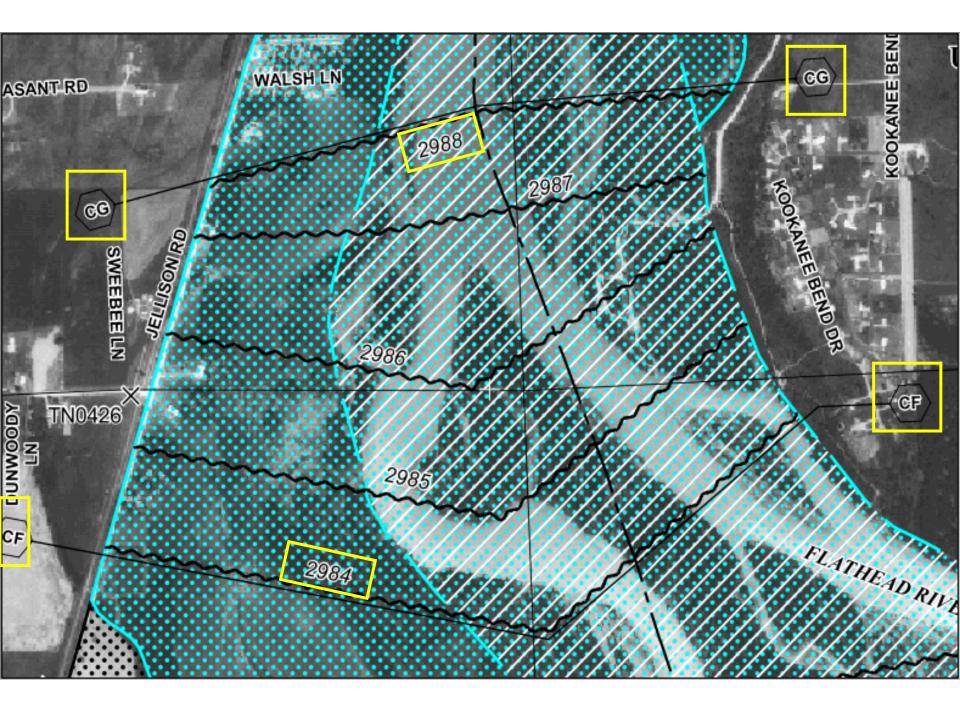
Compiles flood risk data for specific watercourses

Delineates the SFHA, designates flood risk zones and establishes base flood elevations

Contains:

- Narrative
- Tables summarizing flood hazard data
- Computed flood profiles





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FLOODING SOU	IRCE	FLOODWAY		1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION				
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
FLATHEAD RIVER (cont.)								
ВО	145,150	3,251	18,754	4.5	2,933.7	2,933.7	2,934.0	0.3
BP	147,050	2,925	15,369	5.4	2,935.5	2,935.5	2,935.8	0.3
BQ	148,550	3,657	20,632	4.0	2,937.2	2,937.2	2,937.6	0.4
BR	151,050	3,931	9,143	9.1	2,940.7	2,940.7	2,940.7	0.0
BS	153,950	3,194	12,346	6.8	2,945.1	2,945.1	2,945.1	0.0
BT	156,550	2,604	18,187	4.6	2,947.3	2,947.3	2,947.3	0.0
BU	158,650	2,002	7,356	11.4	2,949.5	2,949.5	2,949.5	0.0
BV	160,350	1,252	10,087	8.3	2,953.2	2,953.2	2,953.2	0.0
BW	162,150	971	7,894	10.6	2,956.3	2,956.3	2,956.3	0.0
BX	163,700	1,750	14,184	5.9	2,957.9	2,957.9	2,957.9	0.0
BY	165,550	1,850	7,621	11.0	2,960.2	2,960.2	2,960.2	0.0
BZ	167,300	1,608	12,297	6.8	2,962.7	2,962.7	2,962.7	0.0
CA	170,100	2,013	12,744	6.5	2,966.7	2,966.7	2,966.7	0.0
СВ	172,400	1,280	12,883	6.5	2,969.8	2,969.8	2,970.3	0.5
CC	174,500	1,377	12,545	6.6	2,972.7	2,972.7	2,973.2	0.5
CD	178,000	2,506	20,757	4.0	2,977.6	2,977.6	2,978.1	0.5
CE	180,700	2,416	17,097	4.9	2,980.9	2,980.9	2,981.4	0.5
CF	183,600	2,775	19,317	4.4	2,984.0	2,984.0	2,984.3	0.3
CG	186,700	2,125	15,714	5.4	2,988.0	2,988.0	2,988.5	0.5
СН	191,400	730	9,788	8.6	2,993.7	2,993.7	2,994.2	0.5
CI	197,900	469	8,694	9.7	2,997.8	2,997.8	2,998.3	0.5
CJ	200,070	1,181	12,310	7.7	3,004.1	3,004.1	3,004.3	0.2

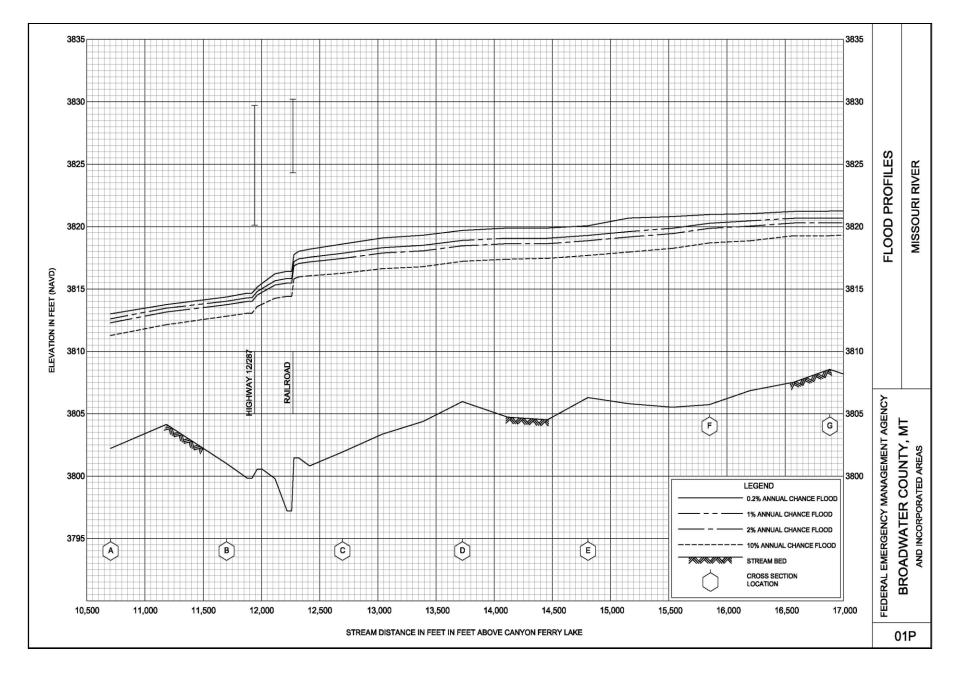
¹Feet above confluence with Flathead Lake

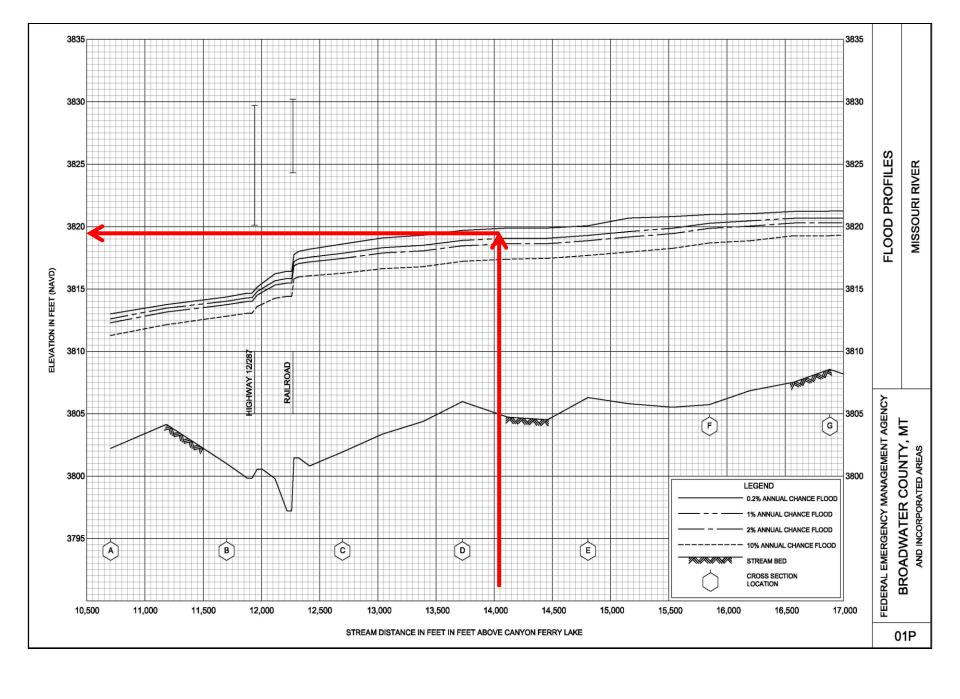
FEDERAL EMERGENCY MANAGEMENT AGENCY

FLATHEAD COUNTY, MT AND INCORPORATED AREAS

FLOODWAY DATA

FLATHEAD RIVER





NATIONAL FLOOD INSURANCE PROGRAM

MAP CLARIFICATIONS and CHANGES

FLOOD INSURANCE RATING

Build outside the floodplain and flood insurance is very cheap (until you experience a flood loss)

Build in the floodplain and elevate the "living" or "finished floor" several feet above the BFE and insurance will be relatively cheap – the higher you go the cheaper it gets.

Structures in floodplain with a finished or enclosed floor below BFE - premiums will be very expensive.

If flood openings are missing or not sufficient and/or machinery/utilities are below BFE insurance will cost more.



PRIVATE LENDER DETERMINATIONS

Around 80% of all determinations are performed automatically using proprietary methods.

When USPS address cannot be found these automated determination methods may default to tax map parcel or even zip code.

A standard appeal process does not exist. Determination companies work for the lender and will only accept review requests from the lender.

ELEVATION CERTIFICATE

Used by agents to rate insurance policies

Used by community to document compliance with floodplain regulations

Needed on buildings located in or near a Special Flood Hazard Area

Certified by a surveyor, engineer, or architect

ELEVATION CERTIFICATES and CRS

Maintaining Elevation Certificates is a participatory prerequisite to the CRS Program

Maintaining ECs means all new construction/substantial improvements must have a completed EC.

The ECs must be correct and complete.

Failure to maintain ECs can result in a CRS Program class reduction

ELEVATION CERTIFICATE ROLES

SURVEYORS/ENGINEERS read the instructions and ensure that the EC is correct and complete

THE COMMUNITY reviews each form for completeness and accuracy—if he form is not complete and accurate, it should not be accepted

THE PROPERTY OWNER should understand the process and ensure all steps are complete

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1-9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A - PROPERTY INFORMATION	FOR INSURANCE COMPANY USE								
A1. Building Owner's Name	Policy Number:								
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.C Box No.	O. Route and Company NAIC Number:								
City	ZIP Code								
A2 Dranativ Description /Let and Discly Numbers Toy Description Level D									
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal D	Description, etc.)								
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.)									
A5. Latitude/Longitude: Lat. Long. Horizontal Datum: NAD 1927 NAD 1983									
A6. Attach at least 2 photographs of the building if the Certificate is being used	I to obtain flood insurance.								
A7. Building Diagram Number									
A8. For a building with a crawlspace or enclosure(s):									
a) Square footage of crawlspace or enclosure(s) sq ft									
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade									
c) Total net area of flood openings in A8.b sq in									
d) Engineered flood openings? Yes No									
A9. For a building with an attached garage:									
a) Square footage of attached garage sq ft									
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade									
c) Total net area of flood openings in A9.b sq in									
d) Engineered flood openings?									
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION									
B1. NFIP Community Name & Community Number B2. County Name	me B3. State								
	▼								
B4. Map/Panel Number B5. Suffix B6. FIRM Index Date B7. FIRM Panel Effective/ Revised Date	B8. Flood Zone(s) B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)								
DAO de de la deservación de la Procedición (DEE) detende de deservación de DAO.									

NATIONAL FLOOD INSURANCE PROGRAM

LETTERS OF MAP CHANGE

LETTERS OF MAP CHANGE

A LOMC is a letter which reflects an official revision to an effective DFIRM/FIRM or FHBM.

A LOMCs is issued in place of the physical revision and republication of the effective map.

A processed LOMC will change the current effective map (by letter) and thus may impact a floodplain administrators' regulatory requirements and also insurance requirements.

In some cases, communities are required to ensure the changed flood risk (either increased or decreased) information is reported to FEMA.

LETTERS OF MAP CHANGE

Map Amendments—no not revise base flood elevation

- Letter of Map Amendment (LOMA)
- Letter of Map Revision based on Fill (LOMR-F)
- Conditional Letter of Map Amendment (CLOMA)
- Conditional Letter of Map Revision based on Fill (CLOMR-F)

Map Revisions—revise base flood elevation and/or floodplain

- Letter of Map Revision (LOMR)
- Conditional Letter of Map Revision (CLOMR)
- Physical Map Revision (PMR)

NATIONAL FLOOD INSURANCE PROGRAM

INSURANCE REQUIREMENTS

WHEN IS INSURANCE REQUIRED?

Residents of High Risk Areas (areas within the SFHA).

Homes and buildings in high risk flood areas with mortgages from federally regulated or insured lenders are required to have flood insurance.

A lender can require flood insurance even if the Homeowner does not want to carry it.

FLOOD INSURANCE RATING

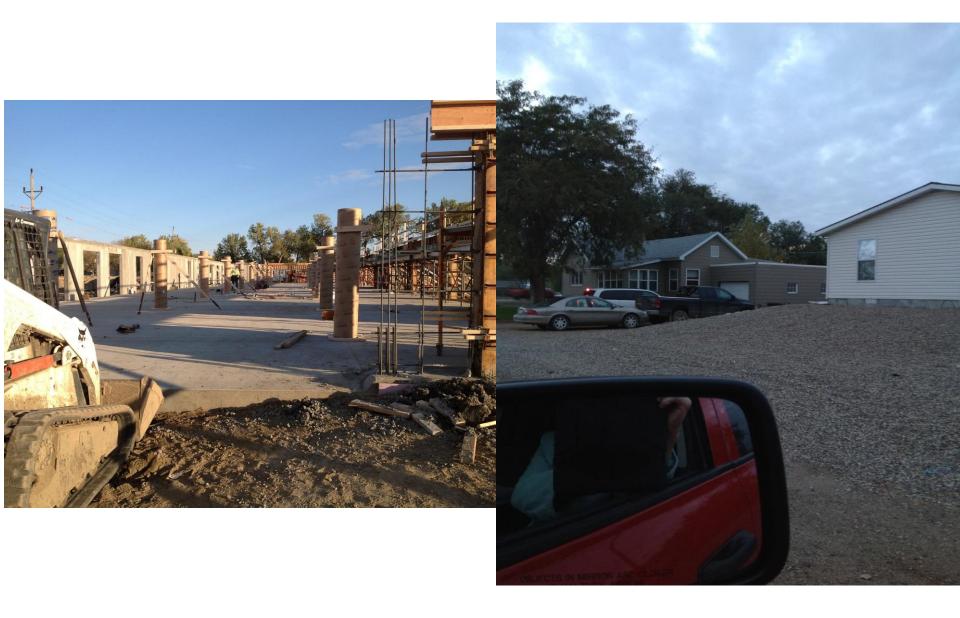
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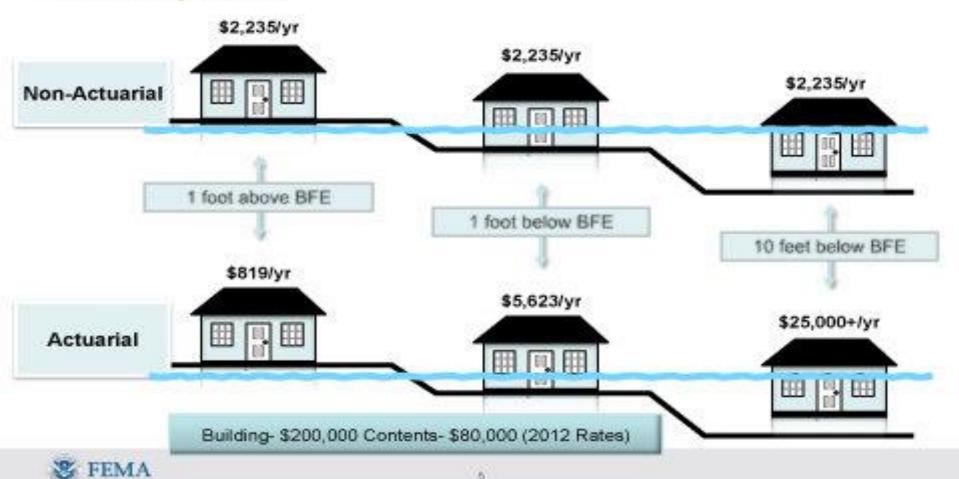
If flood openings are missing or not sufficient and/or machinery/utilities are below BFE insurance will cost more.





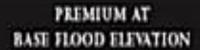
NFIP Rating Examples: The Impact of Loss of Subsidies

Rate comparisons



PREMIUM AT 4 FEET BELOW BASE FLOOD ELEVATION

\$9,500/year \$95,000/10 years



\$1,410/year \$14,100/10 years



PREMIUM AT 3 FEET ABOVE BASE FLOOD ELEVATION

\$427/year \$4,270/10 years

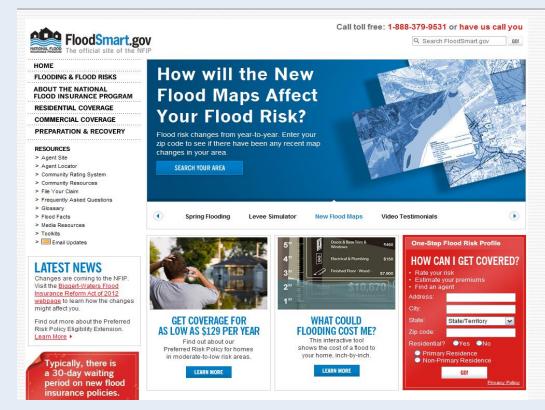








www.floodsmart.gov







Coverage

Building vs. Contents Coverage: What's Covered

Flood insurance protects two types of insurable property: Building and Contents.

The contents can be covered by a separate rider to the original structure policy.

Coverage

Building Coverage

- The insured building and its foundation.
- Electrical and plumbing system.
- Central air, furnaces, water heaters.
- Refrigerators, cooking stoves, dishwashers.
- Permanently installed carpet over unfinished flooring.

Coverage

Contents Coverage

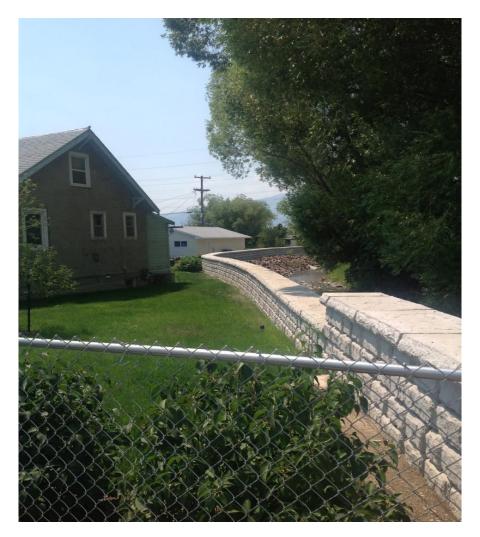
- Clothing, furniture, electronic equipment.
- Curtains.
- Portable and window air conditioners.
- Portable microwaves and dishwashers.
- Carpeting not already included in property coverage.
- Washers and dryers.

Mitigation

Community wide mitigation steps can assist in lowering costs.

Rebuilding higher will lower risk and could reduce premiums.

There are opportunities for state grants which can distribute funds to help with mitigation and rebuilding.





THANK YOU!

Michelle Phillips mphillips2@mt.gov 444-1300

Traci Sears tsears@mt.gov 444-6654

